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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,174	12/21/2001	Syuichi Kudou	0152-0586P	6303

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EXAMINER

SELLERS, ROBERT E

ART UNIT PAPER NUMBER

1712

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,174

Applicant(s)

KUDOU ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/21/01 & 5/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. The election with traverse of Group I in the reply filed on July 15, 2004 is acknowledged. The traversal is on the grounds that it would not be an undue burden to examine Group II with Group I. This is not found persuasive because the myriad types of articles of manufacture within the realm of claims 6-9 requires numerous additional searches in classes wherein these particular articles are classified.

The requirement is still deemed proper and is therefore made FINAL.

Claims 5-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on July 15, 2004.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. Patent No. 5,652,326.

2. Ueda et al. discloses a composition (col. 2, lines 19-34) comprising from 60-97% by weight of a thermoplastic resin such as a polyacetal (col. 5, line 15 and col. 6, lines 25-28 wherein a polyacetal is a homopolymer of formaldehyde or trioxane as is the claimed polyoxymethylene according to page 6, line 27 to page 7, line 3 of the specification), from 3-40% by weight of a polyetheresteramide, from 0-40% by weight (col. 11, lines 12-15) of a compatibilizer such as an acid-grafted olefinic polymer (col. 10, lines 59-62) having a modification rate of from 1-25% by weight (col. 9, lines 13-17), and a mold lubricant (col. 12, line 15).

3. Although the total weight of polyamide elastomer (B):acid-modified olefinic polymer (C) of from 0.5-60 parts by weight, and the ratio of (B):(C) of from 10:90 to 90:10 are not exemplified, it is well within the purview of the proportion ranges of the polyetheresteramide and acid-grafted olefinic polymer of Ueda et al. to employ them with the claimed concentrations relative to the polyacetal and relative to each other.

4. Based on the predominant amount of polyacetal (i.e. 60-97% by weight) relative to the polyetheresteramide and acid-grafted olefinic polymer set forth Ueda et al., the morphology of claim 2 wherein the polyacetal is a continuous phase having the polyetheresteramide and acid-grafted olefinic polymer dispersed as spherical particles is inherent in the prior art blend. The burden of proof shifts to applicants to disprove the equivalent morphology of the formulation of Ueda et al.

Claims 3, 4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to the claims hereinabove, and further in view of Tajima et al. Patent No. 5,854,324.

5. The claimed presence of from 0.1-50 parts by weight of a lubricant (claims 3 and 4) and the specific polydimethylsiloxane lubricant of claims 10 and 11 are not recited in Ueda et al.

6. Ueda et al. is open to the inclusion of other resin additives such as mold lubricants. Tajima et al. espouses a formulation (col. 1, line 64 to col. 2, line 10) containing 100 parts by weight of a polyoxymethylene (col. 2, lines 15-18), from 1-100 parts by weight of an acid-modified olefinic polymer, different type polymers (col. 8, line 34), and from 0.1-20 parts by weight (col. 7, lines 54-56) of a lubricant such as a polydimethylsiloxane (col. 4, lines 25-31, 61-62 and 64 to col. 5, line 19) which imparts ease of handling, processability, friction and abrasion resistances and mechanical properties.

7. It would have been obvious to incorporate the polydimethylsiloxane lubricant of Tajima et al. as a resin additive of Ueda et al. in order to supply ease of handling, processability, friction and abrasion resistances and mechanical properties to the molded product.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Kim et al. Patent No. 6,512,047 is directed to polyoxymethylene compositions with a maleic anhydride-grafted polyolefin wherein polyoxymethylenes are recognized as possessing good mechanical, chemical, physical and electrical properties (col. 1, lines 23-26).
9. Japanese Patent No. 4-168145 is drawn to a mixture of a polyacetal, a polyetheresteramide and a lubricant.
10. Japanese Patent No. 6-240105 describes a polyacetal combined with an anhydride-modified polyolefin and from 0-150 parts by weight of a filler.

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